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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,454	07/24/2001	Jan Robert van Smirren	019929.0144	4455

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EXAMINER

LE, TOAN M

ART UNIT

PAPER NUMBER

2862

DATE MAILED: 10/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/912,454

Applicant(s)

SMIRREN ET AL.

Examiner

Toan M Le

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Brumley et al..

Referring to claim 1, Brumley et al. discloses a water measuring system comprising: an ROV 150 (figure 5), an ADCP 100 coupled to the ROV (figures 2 and 5), and a computer system 162 for receiving and processing ADCP data and ROV data and displaying processed data in real time as the ADCP and ROV move through water, wherein the processed data includes depth and heading data from the ADCP data if such depth and heading data is of a sufficient quality (col. 7, lines 37-53; figures 1a, 1b, and 2).

As to claims 2-3, Brumley et al. discloses a water measuring system, wherein the face of the current profiler on which its acoustic transducers are attached is downward-facing and upward-facing (col. 7, lines 49-52; figures 2, 5, and 6).

Referring to claim 4, Brumley et al. discloses a water measuring system, wherein the system is used to measure water currents in a deep-sea water column (col. 7, lines 37-43).

As to claim 5, Brumley et al. discloses a water measuring system, wherein the deep-sea water column is adjacent to a drilling and/or production riser used in drilling for oil, gas, or other substances (figure 2).

Referring to claim 6, Brumley et al. discloses a water measuring system, wherein the ADCP is shrouded (col. 10, lines 35-37).

As to claim 7, Brumley et al. discloses a water measuring system, further comprising a shroud coupled to and covering the ADCP and including an opening for the transmission and receipt of signals by the transducers of the ADCP (col. 10, lines 35-37).

Referring to claim 8, Brumley et al. discloses a method for processing water measurements in real time, comprising the steps of: receiving depth and heading data from ROV 150 (col. 1, lines 54-57; figure 2); receiving from an ADCP 100 water current velocity data associated with depth cells within a water column (col. 8, lines 1-3; figure 2); receiving depth and heading data from the ADCP if the depth and heading data of the ADCP is substantially free of interference (col. 2, lines 53-57); processing the current velocity data from each depth cell into data associated absolute depth; assigning absolute depth data to virtual bins; processing the data for each bin; and outputting the data at a regular interval (col. 1, lines 29-32; col. 2, lines 21-23 and 58-67; and col. 3, lines 1-9; figures 1a, 1b, and 2).

As to claims 9-10, Brumley et al. discloses a method for processing water measurements in real time, further comprising the step of storing the depth and heading data received from the ROV or the ADCP and the current velocity data at a second regular time interval (col. 10, lines 66-67; and col. 11, lines 1-6).

Referring to claim 11, Brumley et al. discloses a method for processing water measurements in real time, further comprising the step of manually stopping the gathering of data by the current profiler (col. 8, lines 30-32).

As to claim 12, Brumley et al. discloses a method for processing water measurements in real time, further comprising the step of storing the processed data for each bin (col. 2, lines 65-67).

Referring to claims 13-14, Brumley et al. discloses a method for processing water measurements in real time, wherein the current profiler is rigidly attached to the ROV; and wherein the face of the current profiler on which its acoustic transducers are attached is downward-facing and upward-facing (col. 7, lines 49-52; figures 2, 5, and 6).

As to claim 15, Brumley et al. discloses a method for processing water measurements in real time, wherein the step of outputting the data at a regular interval comprises the step of providing a graphical display of the processed data (figures 1a and 1b).

Referring to claim 16, Brumley et al. discloses a method for measuring water currents in real time, comprising the step of receiving and processing data in real time from an ADCP, including depth and heading data, as the ADCP is moving in the vertical direction through a water column (col. 10, lines 54-67; and col. 11, lines 1-2 and 8-14; figure 2).

As to claim 17, Brumley et al. discloses a method for processing water measurements in real time, wherein the ADCP is coupled to an ROV (figure 5).

Referring to claim 18, Brumley et al. discloses a method for processing water measurements in real time wherein the data is received and processed at a computer system remote from the ADCP (col. 11, lines 3-7).

As to claim 19, Brumley et al. discloses a method for processing water measurements in real time wherein the step of processing the data comprises the step of converting data from the frame of reference of the ADCP to a fixed frame of reference (col. 1, lines 57-59; figures 1a and 1b).

Referring to claim 20, Brumley et al. discloses a method for processing water measurements in real time, wherein the data is received and processed at a computer system

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remote from the ADCP (col. 11, lines 3-7); and wherein the step of processing the data comprises the step of converting data from the frame of reference of the ADCP to a fixed frame of reference (col. 1, lines 57-59; figures 1a and 1b).

As to claim 21, Brumley et al. discloses a method for processing water measurements in real time, wherein the data received by the computer system for processing included data indicative of the water current velocity in the profiling range of the ADCP (col. 15, lines 38-41).

Referring to claim 22, Brumley et al. discloses a method for processing water measurements in real time, wherein the data received by the computer system for processing includes data indicative of the water current heading in the vicinity of the ADCP (figure 2).

As to claim 23, Brumley et al. discloses a method for processing water measurements in real time, further comprising the step of presenting a graphical display of the water current velocity through the water column (figures 1a and 1b).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 4,258,568 to Boetes et al. U.S. Patent No. 5,315,562 to Bradley et al.

U.S. Patent No. 5,077,700 to Shaw et al. U.S. patent No. 3,972,231 to Richardson

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan M Le whose telephone number is (703)305-4016. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (703)305-4816. The fax phone numbers for the


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organization where this application or proceeding is assigned are (703)872-9318 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-0956.

Toan Le

October 25, 2002


EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
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